

REMARKS/ARGUMENTS

Reexamination and reconsideration of this Application, withdrawal of these rejections, and formal notification of the allowability of all claims as now presented are earnestly solicited in light of the above amendments and remarks that follow. Claims 4 and 5 have been canceled. Claims 1, 3, 14-17, and 20-21 have been amended to delete references to dione herbicides. Claims 1-3, 6, 10-11, and 14-24 are currently pending in the application.

Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over the publication "Weeds" (1991) by Harr et al. in view of U.S. Patent No. 5,336,662 to Lee and U.S. Patent No. 4,824,475 to Markley et al. Applicants respectfully traverse this rejection.

The Examiner argues that the declaration filed under 37 CFR 1.132 to demonstrate surprising results is not sufficient to overcome the rejection of claims 1-24. Applicants respectfully disagree.

First, with regard to the claimed combination of dimethenamid with a triketone herbicide, the Examiner alleges that although the data in the declaration reflects that the combination of dimethenamid and mesotrione might be synergistic against CASTO, it is merely a difference in degree and not in kind against CHEAL. Thus, the Examiner argues that the combination is not synergistic against all plants and the result is merely an "expected" result. Applicants respectfully disagree.

The declaration shows that the tested combination of dimethenamid and triketone herbicide has a very broad spectrum of activity, showing a clearly synergistically increased action against all species of tested weeds. Specifically, the declaration provides results for no less than 16 species of weeds, and in every case where one or both of the dimethenamid and the triketone had activity against the weed, the activity of the combination exceeded the expected activity, demonstrating a clear synergistic effect. With regard to the CHEAL data, if the calculated (expected) efficacy against a specific weed is 99%, even the strongest synergy cannot result in an efficacy greater than 100%; consequently, the efficacy cannot be increased greater than 1%. Even the increase of the very good herbicidal action against CHEAL to a perfect 100%

herbicidal action is a clear increase in action, and would not be regarded by one of skill in the art as an “expected” result.

The Examiner’s reliance on “expected” results is unfounded. The expected result is an educated guess based upon an assumed combinatorial effect. The expected effect for this combination of herbicides was exceeded in every case. Despite an increase from only “almost perfect” to “perfect,” the CHEAL data clearly indicates surprising results. Synergism is illustrated by across-the-board results that are better than expected, and is not refuted by focusing on one species where 100% effectiveness was achieved when an already high effectiveness was expected. Applicants also note the large increase in activity in some weed species, namely CASTO, for which in one example, the herbicidal combination provided 70% activity as compared with the 36% expected activity and PHBPU, for which in one example, the herbicidal combination provided 70% activity as compared with the 36% expected activity. Further, the Examiner has provided no concrete basis that achieving 100% effectiveness illustrates a lack of synergism. Although the increase in activity between the expected and experimental activities varies among different weeds, the herbicidal combination demonstrated synergy against all species of tested weeds. Accordingly, Applicants respectfully request reconsideration and withdrawal of rejection of this subject matter based on the demonstration of synergy between dimethenamid and the triketone herbicide.

Second, with regard to the claimed combination of dimethenamid with a diketone herbicide, the Examiner argues that the showing in the specification and declaration is not sufficient to overcome the rejection of claims 1-24 as unpatentable over Harr et al. in view of Lee and Markley et al. Although Applicants respectfully disagree with the rejection of this subject matter of these claims, in order to expedite prosecution, the claims have been amended to remove diketones and instead focus on triketones and/or triazines in combination with dimethenamid.

Third, with regard to the claimed combination of dimethenamid with a triazine herbicide, the Examiner alleges that no triazine has been shown to have synergistic activity. Applicants respectfully disagree. Specifically, Applicants direct the Examiner’s attention to Example 4 in the specification. Example 4 describes a herbicidal combination including dimethenamid and

triazine that demonstrates a synergistic effect against three different species of weeds. As noted in the discussion following the example, this combination of compounds exhibited a synergistic herbicidal effect. Accordingly, Applicants respectfully request reconsideration and withdrawal of rejection of this subject matter based on the demonstration of synergy between dimethenamid and the triazine herbicide.

Furthermore, although each of the references cited by the Examiner generally discusses combinations of herbicides, Applicants respectfully submit that the specific combination of dimethenamid with a second herbicide selected from the group consisting of triketone and triazine herbicides claimed in the present invention is not *prima facie* obvious. There is no suggestion or motivation in any of the cited references to combine the teachings of these references. Furthermore, one of skill in the art would not be motivated to utilize this particular combination of herbicides without the teachings of the present application. As a result, Applicants respectfully request reconsideration and withdrawal of this rejection.

In summary, even if a *prima facie* obviousness rejection has been made (which Applicant does not admit), the evidence of record overcomes this rejection. Based on the data contained in the specification and the data presented in the declaration of Mr. Sievernich, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1-24.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

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